1   1.   A computer-implemented method of constructing a portfolio having a

2   utility defined by at least a first function and a second function, the computer-implemented

3   method comprising:

4   selecting a plurality of assets in the portfolio; and

5   maximizing an expected utility of the portfolio; wherein the at least first

6   function is a power-utility function having a first power defining the degree of risk aversion

7   of a holder of the portfolio and wherein the at least second function is a power-utility function

8   having a second power defining the degree of risk aversion of the holder of the portfolio,

9   wherein the first power is different from the second power.

1   2.   The method of Claim 1 wherein the at least first power-utility function

2   defines the utility of the portfolio for positive rates of returns and wherein the at least second

3   power-utility function defines the utility of the portfolio for negative rates of returns.

1   3.   The method of Claim 1 wherein the at least first power-utility function

2   is a log-utility function.

1   4.   The method of Claim 2 wherein the at least first power-utility function

2   is a log-utility function.

1   5.   The method of Claim 4 wherein the act of maximizing the expected

2   utility of the portfolio further comprises the act of selecting a weight for each asset in the

3   portfolio.

1   6 .   The method of Claim 5 wherein the act of selecting a weight for each

2   asset in the portfolio further comprises:

3   assigning a probability point to the occurrence of each one of a plurality of

4   economic events;

5   computing the utility of the portfolio for each economic event;

6   multiplying the utility of portfolio computed for each economic event with the

7   probability of the occurrence of that economic event thereby generating a plurality of values;

8   and

9   summing the values.

1   7. The method of Claim 6 wherein the act of assigning a probability point

2 to the occurrence of each one of the plurality of economic events comprises assigning a

3 probability point to the occurrence of each one of the plurality of economic events based on

4 past economic data.

1   8. A computer system for constructing a portfolio having a utility defined

2 by at least a first function and a second function, the computer system comprising:

3   a processor; and

4   a memory coupled to the processor, said memory storing a plurality of code

5 modules for execution by the processor, the plurality of code modules comprising:

6   a code module for selecting a plurality of assets in the portfolio; and

7   a code module for maximizing an expected utility of the portfolio; wherein the

8 at least first function is a power-utility function having a first power defining the degree of

9 risk aversion of a holder of the portfolio and wherein the at least second function is a power-

10 utility function having a second power defining the degree of risk aversion of the holder of

11 the portfolio, wherein the first power is different from the second power.

1   9. The computer system of Claim 8, wherein the code module for

2 maximizing the expected utility of the portfolio comprises code for the at least first function

3 defining positive rates of returns and wherein the code module for maximizing the expected

4 utility of the portfolio comprises code for the at least second function defining negative rates

5 of returns.

1   10. The computer system of Claim 8, wherein the code module for

2 maximizing the expected utility of the portfolio comprises code for the at least first function

3 that is a log-utility function.

1   11. The computer system of Claim 9, wherein the code module for

2 maximizing the expected utility of the portfolio comprises code for the at least first function

3 that is a log-utility function.

1   12. The computer system of Claim 11 wherein the code module for

2 maximizing the expected utility of the portfolio further comprises a code module for

3 selecting a weight for each one of the plurality of assets in the portfolio.

1　　　13.　　The computer system of Claim 12, wherein the code module for

2　selecting a weight for each one of the plurality of assets in the portfolio further comprises:

3　　　　　code module for assigning a probability point to the occurrence of each one of

4　a plurality of economic events;

5　　　　　code module for computing the utility of the portfolio for each one of the

6　plurality of economic events; and

7　　　　　code module for multiplying the utility of the portfolio computed for each one

8　of the plurality of economic events with the probability of the occurrence of that economic

9　event thereby generating a plurality of values; and

10　　　　　code module for summing the values.

1　　　14.　　A computer program for constructing a portfolio having a utility

2　defined by at least a first function and a second function, the computer program being

3　executable by a processor and comprising:

4　　　　　a code module for selecting a plurality of assets in the portfolio; and

5　　　　　a code module for maximizing an expected utility of the portfolio; wherein the

6　at least first function is a power-utility function having a first power defining the degree of

7　risk aversion of a holder of the portfolio and wherein the at least second function is a power-

8　utility function having a second power defining the degree of risk aversion of the holder of

9　the portfolio, wherein the first power is different from the second power.

1　　　15.　　The computer program of Claim 14, wherein the code module for

2　maximizing the expected utility of the portfolio comprises code for the at least first function

3　defining positive rates of returns and wherein the code module for maximizing the expected

4　utility of the portfolio comprises code for the at least second function defining negative rates

5　of returns.

1　　　16.　　The computer program of Claim 14, wherein the code module for

2　maximizing the expected utility of the portfolio comprises code for the at least first function

3　that is a log-utility function.

1　　　17.　　The computer program of Claim 15, wherein the code module for

2　maximizing the expected utility of the portfolio comprises code for the at least first function

3　that is a log-utility function.

16

1   18.   The computer system of Claim 17 wherein the code module for

2   maximizing the expected utility of the portfolio further comprises a code module for selecting

3   a weight for each one of the plurality of assets in the portfolio.

1   19.   The computer system of Claim 18, wherein the code module for

2   selecting a weight for each one of the plurality of assets in the portfolio further comprises:

3   code module for assigning a probability point to the occurrence of each one of

4   a plurality of economic events;

5   code module for computing the utility of the portfolio for each one of a

6   plurality of economic events; and

7   code module for multiplying the utility of the portfolio computed for each one

8   of the plurality of economic events with the probability of the occurrence of that economic

9   event thereby generating a plurality of values; and

10   code module for summing the values.

11   20.   A networked system for constructing a portfolio having a utility

12   defined by at least a first function and a second function, the networked system comprising:

13   a communication network;

14   a computer system coupled to the communication network;

15   a database coupled to the communication network;

16   wherein the computer system is configured to:

17   select a plurality of assets in the portfolio; and

8   maximize an expected utility of the portfolio; wherein the at least first

9   function is a power-utility function having a first power defining the degree of risk aversion

10   of a holder of the portfolio and wherein the at least second function is a power-utility function

11   having a second power defining the degree of risk aversion of the holder of the portfolio,

12   wherein the first power is different from the second power.

1   21.   The networked system of Claim 20 , wherein the at least first function

2   defines positive rates of returns of the portfolio and wherein the at least second function

3   defines negative rates of returns of the portfolio.

1   22.   The networked system of Claim 20, wherein the at least first function

2   is a log-utility function.

1   23.   The networked system of Claim 21, wherein the at least first function
2   is a log-utility function.

1   24.   The networked system of Claim 23, wherein the networked system is
2   further configured to select a weight for each asset in the portfolio.

1   25.   The networked system of Claim 23, wherein the computer system is
2   further configured to:

3   assign a probability point to the occurrence of each one of a plurality of
4   economic events;

5   compute the utility of the portfolio for each one of the plurality of economic
6   events;

7   multiply the utility of portfolio computed for each economic event with the
8   probability of the occurrence of that economic event thereby generating a plurality of values;
9   and

10   sum the values.

11   26.   A computer program stored on a computer-readable medium for
12   constructing a portfolio having a utility defined by at least a first function and a second
13   function, the computer program comprising:
14   code for selecting a plurality of assets in the portfolio; and
5   code for maximizing an expected utility of the portfolio; wherein the at least
6   first function is a power-utility function having a first power defining the degree of risk
7   aversion of a holder of the portfolio and wherein the at least second function is a power-
8   utility function having a second power defining the degree of risk aversion of the holder of
9   the portfolio, wherein the first power is different from the second power.

1   27.   The computer program of Claim 26, wherein the code for maximizing
2   the expected utility of the portfolio comprises code for the at least first function defining
3   positive rates of returns and wherein the code for maximizing the expected utility of the
4   portfolio comprises code for the at least second function defining negative rates of returns.

18

1   28.   The computer system of Claim 26, wherein the code for maximizing
2 the expected utility of the portfolio comprises code for the at least first function that is a log-
3 utility function.

1   29.   The computer system of Claim 27, wherein the code for maximizing
2 the expected utility of the portfolio comprises code for the at least first function that is a log-
3 utility function.

1   30.   The computer program of Claim 29 wherein the code for maximizing
2 the expected utility of the portfolio further comprises code for selecting a weight for each
3 asset in the portfolio.

1   31.   The computer program of Claim 30, wherein the code for selecting a
2 weight for each asset in the portfolio further comprises:
3   code for assigning a probability point to the occurrence of each one of a
4 plurality of economic events;
5   code for computing the utility of the portfolio for each one of the plurality of
6 economic events;
7   code for multiplying the utility of portfolio computed for each economic
8 event with the probability of the occurrence of that economic event thereby generating a
9 plurality of values; and
10   code for summing the values.